

What is claimed is:

1. A fixing apparatus for imparting a fixer which solves or swells a toner to the toner to fix the toner on a recording material, said apparatus comprising:

a fixer supplying device for imparting to said fixer such that said fixer is attached to said toner, and is not attached to a surface part of said recording material without carrying said toner.

2. The fixing apparatus as claimed in claim 1, wherein

said fixer is imparted such that said fixer is attached to the toner on a toner image carrying body which holds a toner image before the toner image is transferred to said recording material, and is not attached to a surface part of said toner image carrying body without carrying said toner, thereby transferring said toner to which said fixer is imparted on said recording material.

3. The fixing apparatus as claimed in claim 2, wherein

said fixer supplying device supplies said fixer to the toner carried by the surface of said toner image carrying body based on a position information indicating a toner carrying position on the surface of said toner image carrying body.

4. The fixing apparatus as claimed in claim 2, wherein

an action of solving or swelling said toner is promoted by heating said fixer; and

a heating device for heating said fixer attached to said toner on said toner image carrying body is provided.

5. The fixing apparatus as claimed in claim 4, wherein

said heating device comprises a hot air supplying device for blowing hot air onto the surface of said toner image carrying body.

6. The fixing apparatus as claimed in claim 4, wherein
said heating device heats said toner image carrying body from a
reverse surface side of said toner image carrying body.
7. The fixing apparatus as claimed in claim 1, wherein
said fixer is imparted to the toner carried on said recording material.
8. The fixing apparatus as claimed in claim 7, wherein
said fixer supplying device supplies said fixer to the toner carried on
said recording material based on a position information indicating a toner
carrying position on said recording material.
9. The fixing apparatus as claimed in claim 1, wherein
said fixer supplying device supplies a fixer in a foam state onto the
surface of said toner image carrying body.
10. The fixing apparatus as claimed in claim 1, wherein
said fixer contains a surface active agent.
11. The fixing apparatus as claimed in claim 1, wherein
said fixer supplying device supplies a fixer in an atomized state onto
the surface of said toner image carrying body.
12. The fixing apparatus as claimed in claim 7, wherein
an action of solving or swelling said toner is promoted by heating said
fixer, and a heating device for heating the toner on said recording material to
which said fixer is imparted.
13. The fixing apparatus as claimed in claim 1, wherein
said fixer comprises liquid which contains a material for solving or
swelling a resin component constituting said toner, and water.
14. An image forming apparatus comprising:
a toner image carrying body;
a transferring device for transferring toner on said toner image

carrying body onto a recording material;

a fixing device for fixing said toner image transferred onto said recording material; and

a fixing apparatus for imparting fixer which solves or swells a toner to said toner so as to fix said toner on said recording material,

wherein said fixing apparatus is provided with a fixer supplying device for imparting said fixer such that said fixer is attached to said toner, and is not attached to a surface part of said recording material without carrying said toner.

15. An image forming apparatus comprising:

a toner image carrying body;

a transferring device for transferring a toner on said toner image carrying body onto a recording material; and

a fixing device for fixing said toner image transferred onto said recording material,

wherein liquid repelling treatment is applied to said toner image carrying body such that a surface of said toner image carrying body has a liquid repelling property against said fixer; and

a fixer supplying device for supplying said fixer on the surface of said toner image carrying body carrying said toner image before said toner image on said toner image carrying body is transferred onto said recording material is provided.

16. The image forming apparatus as claimed in claim 15, wherein said fixer supplying device comprises:

a supplying roller provided in contact with the surface of said toner image carrying body or in separation by a predetermined gap from the surfaces of said toner image carrying body while opposing to the surface of

said toner image carrying body; and

an applying roller in contact with a surface of said supplying roller for applying said fixer on the surface, and

the fixer contained inside a uniformly-patterned groove formed on the surface of said applying roller is applied on the surface of said supplying roller.

17. The image forming apparatus as claimed in claim 15, wherein said fixer supplying device supplies a fixer in a foam state onto the surface of the toner image carrying body.

18. The image forming apparatus as claimed in claim 17, wherein said fixer contains a surface active agent.

19. The image forming apparatus as claimed in claim 15, wherein said fixer supplying device supplies fixer in an atomized state onto the surface of said toner image carrying body.

20. The image forming apparatus as claimed in claim 15, wherein an excessive liquid removing device for removing an excess of the fixer supplied on the surface of said toner image carrying body before said toner image on said toner image carrying body is transferred onto said recording material is provided.

21. The image forming apparatus as claimed in claim 20, wherein said excessive liquid removing device comprises an air supplying device which blows air onto the surface of said toner image carrying body so as to remove said excess.

22. The image forming apparatus as claimed in claim 20, wherein said excessive liquid removing device includes a collecting roller which is provided in contact with the surface of said toner image carrying body or in separation by a predetermined gap from the surfaces of said toner

image carrying body while opposing to the surface of said toner image carrying body, and attaches said excess on a surface for collecting said excess.

23. The image forming apparatus as claimed in claim 15, wherein an action of solving or swelling said toner is promoted by heating said fixer; and a heating device for heating said fixer attached to said toner on said toner image carrying body is provided.

24. The image forming apparatus as claimed in claim 23, wherein said heating device comprises a hot air supplying device for blowing hot air onto the surface of said toner image carrying body.

25. The image forming apparatus as claimed in claim 23, wherein said heating device heats said toner image carrying body from the reverse surface side of said toner image carrying body.

26. The image forming apparatus as claimed in claim 15, wherein said fixer comprises liquid which contains a material for solving or swelling a resin component constituting said toner, and water.

27. The image forming apparatus as claimed in claim 15, wherein said fixing apparatus comprises a liquid injecting head for injecting said fixer only on said toner.

28. The image forming apparatus as claimed in claim 15, wherein said fixer is imparted to said toner which is not before second-transfer on said recording material, but which is after the second-transfer on said recording material.